

**CALIFORNIA ENVIRONMENTAL QUALITY ACT****DRAFT
SPECIAL INITIAL STUDY**

For
Closure of Palm Enterprises Treatment Facility at
Naval Weapons Station Seal Beach, Detachment Fallbrook
Fallbrook, San Diego County, California

The Department of Toxic Substances Control (DTSC) has completed the following Special Initial Study for this project in accordance with the California Environmental Quality Act (§ 21000 et seq., California Public Resources Code) and implementing Guidelines (§15000 et seq., Title 14, California Code of Regulations). This Special Initial Study has also been used to satisfy the requirements of 711.4, Fish and Game Code and 753.5, Title 14, Code of California Regulations relating to filing of environmental fees.

I. PROJECT INFORMATION

Project Name: Former Palm Enterprises Treating Facility

Site Location: Former Palm Enterprises Treatment Facility
Naval Weapons Station, Seal Beach
Detachment Fallbrook
700 Ammunition Road
Fallbrook, CA 92002-3187

Section: 26
Township: 9 South
Range: 4 West

Contact Person/ Address/ Phone Number:

Pei-Fen Tamashiro
562-626-7897
Naval Weapons Station, Seal Beach
800 Seal Beach Blvd., Building 110, Code N45W,
Seal Beach, CA 80740-5000

Project Description:

Naval Weapons Station, Seal Beach, Detachment Fallbrook (NWSSBDF) is requesting approval of a Closure Certification Report (CCR) from the Department of Toxic Substances Control (DTSC). This CCR provides information to verify that NWSSBDF successfully decontaminated and closed the former Palm Enterprises hazardous waste treatment facility located on the base. NWSSBDF is also requesting DTSC approval of a Closure Plan (CP) that contained procedures used to decontaminate and close this facility.

This CP was prepared and submitted following guidelines contained in California Code of Regulations (CCR), Title 22, Section 66264.112. This Initial Study examines the potential impacts associated with closure activities and verification procedures.

Closure activities conducted by NWSSBDF following guidelines contained under CCR, Title 22, Section 66264.112 included:

- Decontamination and off-site transport of equipment, units, and concrete containment berms and pads;
- Decontamination and off-site transport of metal components;
- Consolidation and off-site transport of rinsate and oily wastes;
- Off-site transport of dried napalm chips, soil mixed with napalm chips, and metal components plugged with napalm (mainly pipes, valves, and inaccessible equipment, such as the extruder and condenser materials contaminated with napalm residue);
- Excavation and off-site transport of contaminated soils;
- Removal, decontamination, and off-site transport of underground storage tanks;
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources;
- Waste characterization of rinsate, concrete, and soil; and
- Sampling of soils to verify that closure activities met closure performance standards.

Background:

40 CFR 265.112(e) allows the owner of a hazardous waste facility to conduct closure activities before submittal and approval of a formal CP. NWSSBDF requested approval to proceed with closure activities prior to full authorization by DTSC because the time limit for expenditure of federal funds for closure-related activities was to expire before a formal DTSC decision on the CP would have been made. DTSC approval of this request was conditioned on NWSSBDF submitting a CCR to ensure that closure activities would be conducted in a manner consistent with the requirements of CCR, Title 22, Section 66264.112.

Closure Activities

Closure activities consisted of a removal process for the permitted and non-permitted components of the former Palm Enterprises Treatment Facility. For purposes of closure, any process equipment that came into contact with a component of napalm was considered ancillary equipment and underwent closure. Equipment and components that were cleaned, dismantled, removed, disposed of, and/or recycled during this removal process are listed and described in Appendix 1 (Attached). NWSSBDF began site closure activities on August 14, 2001. These closure activities were conducted in the following four phases:

PHASE I: Removal of Processing Equipment, Piping, Miscellaneous Scrap

- Decontaminated Metal

Metal components decontaminated during closure activities were transported in roll-off containers as scrap metal to Pacific Steel, Inc. of National City, California for recycling. Approximately 73 tons of decontaminated metal (mainly tanks, piping, and support structures) were recovered and recycled. Approximately 12 truck loads of non-hazardous debris (approx. 240 cubic yards) and 12 truckloads of hazardous debris (approx. 240 cubic yards) were transported offsite. In addition, a total of nineteen 55-gallon drums containing rinsate and oily wastes were transported offsite for proper disposal.

- Rinse Water

Decontamination of equipment and units at the site generated 495 gallons of rinse water. Rinse waters were containerized in 55-gallon drums and shipped as a hazardous wastewater to ENSCO in El Dorado, Arkansas for treatment. Hazardous waste manifests for the rinse waters are available upon request.

- Hazardous Waste Solids Removal

Materials contaminated with napalm residue were characterized as a hazardous waste. Hazardous waste solids included dried napalm chips, soil mixed with napalm chips, and metal components plugged with napalm (mainly pipes, valves, and inaccessible equipment, such as the extruder and condenser). These materials were shipped as a hazardous waste under D001, D008, and D018 waste codes to either

ENSCO in El Dorado, Arkansas or Chemical Waste Management in Kettleman City, California for disposal. Copies of completed hazardous waste manifests are available upon request.

PHASE II: Removal of Aboveground and Underground Storage Tanks

- Underground Chemical Solution Storage Tank

This tank was removed by crane after decontamination and placed on a flatbed truck and transported offsite. Excavated soils necessary to remove the underground tank were stockpiled and sampled to determine if hazardous. All hazardous materials were disposed of appropriately to a designated disposal facility. Approximately 250 cubic yards of clean backfill soil (12 truckloads) were transported to the facility from an offsite location after removal of the underground tank. The excavated soils were characterized.

- Petroleum-Contaminated Soils

Approximately 36 cubic yards of soil contaminated with hydraulic oil or gasoline were disposed of as non-RCRA hazardous waste at Chemical Waste Management in Kettleman City, California.

After decontamination procedures were completed, the aboveground Gasoline Separator Tank, Gasoline/Benzene Tank, Gasoline Accumulator Tank, Vapor Condenser Tank, and the Distillation Cylinder were disconnected, placed on a flatbed truck, and transported offsite. The Propane Tank was also decontaminated, removed, and transported in the same manner.

Gasoline Release Area

Soil impacted by gasoline was discovered while excavating an underground pipe that ran from the Chemical Solution Storage Tank vault to the Gasoline/Benzene Tank. A soil area (approximately 9 feet by 10 feet by 7 feet deep) was visibly impacted at an elbow in the piping run. The visibly impacted soil was excavated using a backhoe until no visibly impacted soil existed. Based on chemical characterization, the excavated soil (approximately 23.5 cubic yards) was placed into a transportation container and was disposed of as a non-RCRA hazardous waste at the Chemical Waste Management Facility located in Kettleman City, California.

Site Restoration of the Chemical Solution Storage Tank Pit

Restoration activities included back-filling the Chemical Solution Storage Tank pit and the underground piping trenches as well as general site grading to promote controlled drainage and to prevent ponding. Fill material used at the site was obtained from two sources. Approximately 135 cubic yards of decomposed granite was obtained from Superior Ready Mix Concrete and was placed in the lower portion (from 13.5 feet to 3 feet below ground surface [bgs]) of the Chemical Solution Storage Tank pit. The remainder of the fill material consisted of on-site soil that had been excavated and stock-piled as part of the Chemical Solution Storage Tank and underground piping removal activities conducted during closure. On-site fill material was used to fill the upper 3 feet of the Chemical Solution Storage Tank excavation and the pipe trenches. The material was lightly compacted using a rubber-tired backhoe.

Before placing any on-site fill material into the excavations, 14 discrete samples and one composite sample were analyzed to verify that the material was acceptable for placement back into the excavations.

Before placing off-site fill material into the Chemical Solution Storage Tank excavation, a letter from Superior Ready Mix was obtained stating that the material provided was obtained from a location that had never engaged in any industrial activity to the best of Superior Ready Mix's knowledge and did not contain any contaminants.

PHASE III: Removal and Disposal of Concrete

Closure of the concrete containment berm and pads occurred after the Gasoline/Benzene Storage Tank was removed. Closure activities for the concrete containment berm and pads consisted of manually removing any hazardous waste residue on the concrete. The concrete berm and pads were broken up into pieces for easy loading into an appropriate transportation container or vehicle. The concrete was transported offsite with other debris by truck for proper disposal. It is estimated that 12 truckloads of concrete were shipped offsite. Each truckload held approximately 20 cubic yards.

Concrete from secondary containment structures was analyzed and determined to be non-hazardous. Subsequently, concrete debris from the secondary containment structures and appurtenances was transported to Moody's as demolition debris. Concrete was disposed of in the demolition landfill.

Hydraulic Oil Release Area

Soil contaminated with hydraulic oil was discovered after the concrete containment pad was removed. A soil area (approximately 7 feet by 16 feet by 3 feet deep) was visibly contaminated with hydraulic oil. According to Navy personnel, Mr. Eike Hohenadl, approximately 10 gallons hydraulic oil had spilled onto the processing pad when a line was cut by a salvage contractor in the fall of 1998. The visibly contaminated soil was excavated, using a backhoe, until no visibly stained soil existed. Based on chemical characterization, the excavated soil (approximately 12.5 cubic yards) was placed into a transportation container and was disposed of as a non-RCRA hazardous waste at the Chemical Waste Management Facility located in Kettleman City, California.

PHASE IV: Soil Sampling Plan

The primary objective of the soil sampling plan was to reveal whether or not there have been any releases of hazardous wastes or constituents to the soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, and any underground pipe trenches so that the facility can be designated as clean closed.

Soil contamination from operation was not anticipated; however, where contaminated soil was encountered, it was remediated as described in the closure plan activities.

The closure activities at the Palm Enterprises Treatment Facility involved the excavation of approximately 360 cubic yards of concrete and soil. It is estimated that 120 cubic yards of soil were shipped offsite.

Additional information can be found in Section C of the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001", Reference 1.

- Waste Characterization Activities Conducted

Waste characterization sampling included the collection of rinsate, concrete, and soil samples. This sampling ensured the proper characterization and disposal of closure-generated waste. Quality assurance/quality control sampling was performed in accordance with the approved Sampling and Analysis Plan. Verification sampling results were compared to the closure performance standards presented in the Closure Plan.

- Verification Sampling Activities Conducted

Soil sampling was conducted to verify that soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, underground pipe trenches, and identified release areas met the closure performance standards as established in the Closure Plan. Soil sampling activities were conducted under the direct supervision of Mr. Phil Jagucki, registered geologist in the State of California.

Sampling staff collected 33 samples, including four duplicate samples, during verification sampling activities at locations indicated in the closure plan.

- Sample Collection Methods

Soil samples were collected in general accordance with the Closure Plan. Some deviations from the original plan were made to allow for improved efficiency and to provide sampling of the two new areas of contamination (hydraulic oil release area and gasoline release area) discovered after undertaking concrete and tank removal activities.

Quality control samples were collected to verify the accuracy and precision of the laboratory. A comparison of the BTEX and styrene constituent concentrations to closure performance standards indicated that all verification sample results for BTEX and styrene were below the established clean closure performance standards. A comparison of lead concentrations to the closure performance standard indicated that all verification sample results for lead were below the established clean closure performance standard.

Results of Closure Activities

Based on the results of the verification soil sampling and visual inspection, the Palm Enterprises Treatment Facility met the closure performance standards, and the facility is clean closed. No post closure care is needed at the facility.

The following is an analysis of the potential impacts to the environment created as a result of implementation of closure activities.

II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED BY DTSC

- | | |
|--|--|
| <input type="checkbox"/> Initial Permit Issuance | <input type="checkbox"/> Removal Action Plan |
| <input type="checkbox"/> Permit Renewal | <input type="checkbox"/> Removal Action Workplan |
| <input type="checkbox"/> Permit Modification | <input type="checkbox"/> Interim Removal |
| <input checked="" type="checkbox"/> Closure Plan | <input type="checkbox"/> Other (Specify) |
| <input type="checkbox"/> Regulations | |

Program/ Region Approving Project: Southern California Permitting Branch, Department of Toxic Substances Control, State of California.

Contact Person/ Address/ Phone Number: Mike Eshaghian/1011 North Grandview Ave, Glendale, CA 91201/818-551-2926.

III. ENVIRONMENTAL RESOURCES POTENTIALLY AFFECTED

The boxes checked below identify environmental resources which were found in the following ENVIRONMENTAL SETTING/IMPACT ANALYSIS section to be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact".

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Population and Housing |
| <input type="checkbox"/> Agricultural Resources | | |

- | | | |
|--|--|--|
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Biological Resources | | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Transportation and Traffic |
| <input type="checkbox"/> Geology And Soils | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Noise | <input type="checkbox"/> Cumulative Effects |

IV. ENVIRONMENTAL IMPACT ANALYSIS

The following pages provide a brief description of the physical environmental resources that exist within the area affected by the project and an analysis of whether or not those resources will be potentially impacted by the proposed project. Preparation of this section follows guidance provided in DTSC's California Environmental Quality Act Initial Study Workbook [Workbook]. A list of references used to support the following discussion and analysis are contained in Attachment A and are referenced within each section below.

Mitigation measures which are made a part of the project (e.g.: permit condition) or which are required under a separate Mitigation Measure Monitoring or Reporting Plan which either avoid or reduce impacts to a level of insignificance are identified in the analysis within each section.

1. Aesthetics

Project activities likely to create an impact: None

Explanation: Closure activities took place on an existing military complex, among structures of similar nature. The former treatment facility was not a listed historic building. Lighting was not necessary, as all work was conducted during daylight hours. Therefore, additional analysis is not deemed necessary.

Description of Environmental Setting:

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Have a substantial adverse effect on a scenic vista.
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.
- c. Substantially degrade the existing visual character or quality of the site and its surroundings.
- d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

References: 1. Revised Closure Plan - Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

2. Agricultural Resources

Project activities likely to create an impact: None

Explanation: Closure activities took place on an existing military complex that is not zoned for agricultural use. Clean-up goals were set at background concentration levels, which represent the original soil condition before the facility was constructed and operated. The closure performance standards for the constituents of concern are contained in Table 6 within the Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001 (Ref. 1). Where soil contamination was encountered, cleanup was performed in accordance with the closure plan. Therefore, no additional analysis of impacts is deemed necessary.

Description of Environmental Setting:

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.
- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001, Table 6

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

3. Air Quality

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

Description of Environmental Setting:

The project area is located in the San Diego Air Basin, subject to regulatory oversight of the San Diego County Air Pollution Control District (SDCAPCD). The Air Basin is currently classified as non-attainment for ozone and particulate matter (PM) 10. See California Air Resources Board, Ambient Air Quality Standards (1/25/99).

The SDCAPCD is responsible for enforcing, within its jurisdiction, air quality standards established by the California Air Resources Board (CARB) and the federal Environmental Protection Agency (EPA). These air quality standards contain averaging times and threshold concentration levels for certain criteria pollutants that cannot be exceeded by proposed projects. However, during a telephone conversation with Mr. Steve Moore of the SDCAPCD, Mr. Moore stated that the SDCAPCD has no specific regulations for air emissions during removal actions.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.

As stated above, in a conversation with Mr. Steve Moore of the SDCAPCD, Mr. Moore stated that the SDCAPCD has no specific regulations for air emissions during removal actions.

- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

The closure activities at the Palm Enterprises Treatment Facility involved the excavation of approximately 360 cubic yards of concrete and soil. Some dust was produced while breaking the concrete and excavating the soil to expose the pipe, and this excavation work was completed within three days. Specific control measures were used to reduce this short-term impact. The contractor for the Palm Enterprises closure implemented measures to control dust emissions, such as wetting of dust and soils as they were excavated from the site and work limitations based on wind speed and direction, thus minimizing any impact to air quality associated with the closure activities. The emissions that occurred during closure activities were limited in quantity and duration, and the types and levels of emissions released did not lend themselves to characterization in terms of quantification, evaluation of specific applicable regulations for their control, emissions monitoring, emissions controls, or, in general, evaluation of prospective significant adverse impacts on air quality. The closure activities did not result in any adverse emissions on any air resources that would have affected the health or well being of surrounding populations.

- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).

As noted in item b. above, with the inclusion of the Palm Enterprises contractor's dust control measures, no significant impacts to air resulted from this project.

- d. Expose sensitive receptors to substantial pollutant concentrations.

As noted in item b. above, with the inclusion of the Palm Enterprises contractor's dust control measures, no significant impacts to air resulted from this project.

- e. Create objectionable odors affecting a substantial number of people.

The closure operations occurring on at the Palm Enterprises facility did not affect communities surrounding the military base. The nearest residential area is the NAVWPNSTASB Detachment base housing, which is approximately 0.9 mile due east of the project site. The Palm Enterprises facility closure did not significantly impact this population.

In addition, the following are addressed to meet the requirements set forth under Section 711.4, Fish and Game Code and 753.5, Title 14, Code of California Regulations relating to filing of environmental fees:

- Degradation of any air resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air.

Closure removal activities conducted at the Palm Enterprises facility were supervised by a permitted 10(a)(1)(A) biologist who conducted pre-construction monitoring for the California gnatcatcher. All construction activities were planned to occur outside the recognized gnatcatcher breeding season. Consequently, the gnatcatcher habitat was not disturbed, and no significant impacts resulted from the facility closure activities. The registered biologist did not observe Stephen's kangaroo rat (SKR) in the construction area. Dust suppressant controls, such as wetting of dust and soils as they were excavated from the site, were taken to minimize air contamination. No significant impacts resulted from the facility closure activities.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 20017, California Air Resources Board, Ambient Air Quality Standards (1/25/99)

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

4. Biological Resources

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

Description of Environmental Setting: A consultant report entitled "Integrated Natural Resources Management Plan" (INRMP) was completed for Naval Weapon Station Seal Beach, Detachment Fallbrook, in December 1996. The purpose of the INRMP is to provide conservation and management recommendations within the scope of the military mission. This response is summarized based on the data collected in the INRMP.

Naval Weapon Station Seal Beach, Detachment Fallbrook, is situated in the foothills of northern San Diego County, in the largest undeveloped portion of land along California's coastline between two large metropolitan areas: greater Los Angeles and San Diego. Two less developed areas adjoin the Detachment: the Community of Fallbrook along the eastern border and Camp Pendleton's housing

facility at the southwest corner. Together with Camp Pendleton and the San Mateo wilderness Area of the Cleveland National Forest, these adjoining properties comprise the largest remaining major open space and wildlife habitat in coastal southern California.

The nature of the Detachment's mission, and the resulting requirement for a large buffer area to ensure safety, has enabled the majority of the Detachment's 8,850 acres to remain as natural open space with relatively undisturbed plant communities and wildlife habitats. Some sensitive plant and wildlife species occur on the Detachment and are protected by Federal law. Protection and enhancement measures required to safeguard the Detachment's natural resources constrain the types of land use activities that take place at the Detachment.

A diversity of plant and wildlife species make up the Detachment's rich biota. Approximately 300 plant species comprise the eighteen vegetation communities and seven wildlife habitats in the Detachment. A total of 238 wildlife species are known to occur in these seven habitats. The species that inhabit the Detachment include 169 birds, six amphibians, 19 reptiles, and 44 mammals. Some species are resident, some are regular visitors, and some are seasonal visitors such as migratory birds.

The eighteen vegetation communities that occur on the Detachment include the Coastal Sage Scrub, Sparse Coastal Sage Scrub, Coastal Sage Scrub/Chaparral, Chamise Chaparral, Mixed Chaparral, Malosma Chaparral, Southern Oak Woodland, Oak Riparian Woodland/Forest, Willow Riparian Woodland/Forest, Mixed Riparian Woodland/Forest, Nonnative Riparian Woodland/Forest, Riparian Scrub, Eucalyptus, Nonnative or Annual Grassland, Mixed Grassland, Disturbed, Freshwater Marsh, and the Open Water. Three sensitive plants known to occur on the Detachment include the yellow jewelflower, Fish's milkwort, and Engelmann oak.

Several sensitive wildlife species are present in the Detachment. Four species that fall under the Detachment's legal obligations are the coastal California gnatcatcher (Federal threatened), the least Bell's vireo (Federal endangered), the Stephens' kangaroo rat (Federal endangered), and the southwestern arroyo toad (Federal endangered). Other State listed rare and endangered species also occur in the Detachment. Although protection of State listed rare and endangered species on Navy land is not required by legal mandate, the Navy encourages cooperation with the State to protect such species.

The closure project site is an abandoned hazardous waste management facility. Existing equipment at the site is described in Section C of the closure plan dated July 16, 2001. A survey for Stephen's kangaroo rat (SKR), (*Dipodomys stephensi*) a federally endangered species, was conducted before the construction of the facility with results showing "suitable" and "suitable and occupied" habitat. On October 24, 2000, "critical habitat" was designated for the Coastal California Gnatcatcher (*Poliptila californica californica*), wherein elements essential for the primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchanges, or sheltering were identified as constituent elements essential to the survival of the species as defined in the Endangered Species Act. Constituent elements are present on site for the gnatcatcher.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

A permitted 10(a)(1)(A) biologist conducted pre-construction monitoring for the California gnatcatcher. All construction activities were planned to occur outside the recognized

gnatcatcher breeding season. Consequently, the gnatcatcher habitat was not disturbed, and no significant impacts resulted from the facility closure activities. The registered biologist did not observe SKR in the construction area. In addition, the following measures were implemented during facility closure activities to minimize impacts on wildlife and vegetation in the area.

1. Construction activities occurred during normal working hours (M-F 06:30-16:30), and no site activity of any type occurred during hours of darkness.
2. The limits of construction were staked and flagged by the biologist before initiation of any construction. No work was authorized outside the limits of construction.
3. A qualified biologist possessing a valid 10(a)(1)(A) permit for SKR conducted a pre-construction survey for SKR within five (5) days of the commencement of construction. All active SKR areas were pin flagged for avoidance during construction activities.
4. The contractor preserved the natural resources within the project boundaries and outside the limits of construction. The contractor restored temporarily impacted areas to an equivalent or improved condition upon completion of work. The contractor confined all construction activities within the limits of the work indicated or specified.
5. The contractor covered the excavated underground storage tank (UST) pit at the close of each business day. The cover was fashioned so that small mammals were not able to enter the excavated area. Sandbags or similar devices were used to anchor the UST-pit cover to restrict animal access to the excavated area.
6. At the beginning of each business day, the contractor conducted an inspection of the excavated UST pit prior to any construction activities. The contractor notified the site biologist to arrange for removal any entrapped animals, which fell into the pit during the night.
7. Vehicles used existing access roads to the greatest extent feasible. Where new access was required, rubber-tired vehicles followed a one-lane route [15 feet (4.6 meters) wide] over existing vegetation. All access routes outside the existing road or construction corridor were clearly marked (i.e. flagged and/or staked before the onset of construction by the 10(a)(1)(A) SKR biologist).
8. Auger spoils were stockpiled or containerized in disturbed areas lacking native vegetation where feasible. Soil stockpile or container storage areas were delineated on the site plan and were reviewed and approved by a permitted biologist. Auger spoils were back filled in open holes. Native soils were used to backfill the UST pit.
9. Fueling of equipment was not permitted on the site. The contractor was responsible for checking construction equipment for leaks and repairing as necessary before operation. Any spills were reported to Mr. Robbie Knight, Conservation Program Manager, and immediately cleaned up, as specified by the Navy.
10. The contractor was fully responsible for all mitigation and financial requirements to protect sensitive biological resources outside the impact areas delineated on the project drawings that may have occurred as a direct result of the construction activities.
11. The contractor was not to remove, cut, deface, injure, or destroy trees or shrubs, or bare ground not detailed in the closure plan as being part of the overall closure activities, unless an exception was coordinated through Mr. Robbie Knight, Conservation Program Manager.
12. Staging areas, equipment access, and disposal or temporary placement of auger spoils

were prohibited within surrounding drainages.

13. The contractor removed traces of temporary construction facilities such as work areas, stockpiles of excess waste material, and other signs of construction at the end of construction.
 14. The Contractor made maximum use of low-noise emission products, as certified by the Environmental Protection Agency. The Contractor performed equipment refueling, repair, and other noise-generating operations off the facility.
 15. The contractor provided for a Biological Resource Education session, attended by all contractor and subcontractor personnel, to apprise them of the biological resources associated with the project. The program was completed before initiation of construction work.
 16. The contractor ensured that all vehicles were removed from unpaved areas, (roads, bare ground, vegetated areas) overnight within areas of potential Stephens' kangaroo rat habitat.
 17. The contractor ensured that the staging and lay-down area was located in a disturbed area. The staging area was not located in SKR habitat. The contractor picked up and disposed of rubbish and debris in covered containers, which were emptied daily.
 18. At project completion, the contractor left the areas free of construction-related materials.
 19. A permitted 10(a)(1)(A) biologist conducted pre-construction monitoring for the California gnatcatcher. All construction activities were planned to occur outside the recognized gnatcatcher breeding season; consequently, the gnatcatcher habitat was not disturbed.
 20. Coastal Sage Scrub was not removed as part of the closure activity.
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

There is no existing fish habitat at the project site. A survey for Stephen's kangaroo rat (*Dipodomys stephensi*), a federally endangered species, was conducted before the construction of the Palm Plant, with results showing "suitable" and "suitable and occupied" habitat. On October 24, 2000, "critical habitat" was designated for the Coastal California Gnatcatcher (*Poliophtila californica californica*), wherein elements essential for the primary biological needs of foraging, nesting, rearing of young, intra-specific communication, roosting, dispersal, genetic exchanges, or sheltering were identified as constituent elements essential to the survival of the species as defined in the Endangered Species Act. The project resulted in no impact on this endangered species or its critical habitat. The biologist did not observe Stephen's kangaroo rat in the construction area. In addition, refer to item a above.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

The closure project was not located near a wetland area.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

As stated in item a above, a permitted 10(a)(1)(A) biologist conducted pre-construction monitoring for the California gnatcatcher. All construction activities were planned to occur outside the recognized gnatcatcher breeding season. Consequently, the gnatcatcher habitat was not disturbed, and no significant impacts resulted from the facility closure activities.

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Refer to item a above. As stated previously, a permitted 10(a)(1)(A) biologist conducted pre-construction monitoring activities. No significant impacts resulted from the facility closure activities.

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Please refer to item a above. Mitigation measures were designed by the closure site biologist and implemented by the site biologist and/or contractor during facility closure activities to ensure that disturbances to the existing habitat were fully minimized.

In addition, the following are addressed to meet the requirements set forth under Section 711.4, Fish and Game Code and 753.5, Title 14, Code of California Regulations relating to filing of environmental fees:

Plants:

- Changes to any riparian land or wetlands under state or federal jurisdiction.
- Changes to soil required to sustain habitat for fish and wildlife.
- Any adverse effect to native and non-native plant life.
- Effects to rare and unique plant life and ecological communities dependent on plant life.
- Any adverse effect to listed threatened and endangered plants.
- Effects on habitat in which listed threatened and endangered plants are believed to reside.
- Effects on species of plants listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder.
- Effects on marine and terrestrial plant species subject to the jurisdiction of the Department of Fish and Game and ecological communities in which they reside.

The concrete pad was removed during the closure, which promoted rather than deteriorated plant habitat. Field surveys for plant communities had been conducted several times in the past. Detailed information was gathered in 1987, 1995, 1996, 1996, 1998, and 2000. Although these intensive surveys cover a wide array of topics, they contain information that is directly applicable to the project site. In addition, please refer to item a above.

Animals:

- Effects on listed threatened or endangered animals.
- Effects on habitat in which listed threatened or endangered animals are believed to reside.
- Effects on species of animals listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulations adopted thereunder.
- Effects on marine and terrestrial animal species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside.

Please refer to items a and b above.

- References:*
1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
 2. Naval Ordnance Center, Pacific Division, Fallbrook Detachment, 1996, Integrated Natural Resources Management Plan

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

5. Cultural Resources

Project activities likely to create an impact: None.

Description of Environmental Setting: A survey completed by Ogden Environmental and Energy Services entitled, Final Report of Historic Properties Inventory of Three Napalm Sites on the Naval Ordnance Center, Pacific Division, Fallbrook Detachment, Fallbrook, California, dated August 1996 found no evidence of archeological sites within the napalm storage areas. Although the project site is within the boundary of the Fallbrook World War II Historic District, it was not found to be a contributing element of the district, and was not identified as a Cold War Era resource. No further analysis is needed.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.
- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.
- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- d. Disturb any human remains, including those interred outside formal cemeteries.

- References:*
1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

6. Geology and Soils

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

Description of Environmental Setting: The closure site topography is described in Section B.2 of the Closure Plan dated July 16, 2001. An Erosion Study at the Naval Weapons Station, Seal Beach, Detachment Fallbrook was conducted by Tierra Data Systems in 1990. Two major soils dominate the removal action footprint: (1) Fallbrook sandy loam and (2) Placentia sandy loam, both of which are demonstrated soil types that are considered to be highly erodable. The 1990 study employed Use Sediment Delivery Ratios to establish and predict sediment yields. Medium to high metric indices were obtained from the removal area footprint, which strongly supports the observed erosion patterns currently present on-site. This situation is further compounded by the fact that the area around the Palm Plant is denude of vegetation, due to the application of a soil sterilant prior to placement of napalm canisters in the ground. A summary of seismic vulnerability is presented on page 7 of 40 in the document "Palm Enterprises Treating Facility – An Operations Plan for Hazardous Waste Treatment – June 5, 1987."

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42)
- Strong seismic ground shaking
- Seismic-related ground failure, including liquefaction
- Landslides

The size of the project site, approximately 1-acre, did not have significant impact on the geology and soils in the large, open, surrounding area.

- b. Result in substantial soil erosion or the loss of topsoil.

The closure activities at the Palm Enterprises Treatment Facility involved the excavation of approximately 360 cubic yards of concrete and soil. Some dust was produced while breaking the concrete and excavating the soil to expose the pipe. Specific control measures were used to reduce this short term impact by using one or a combination of the following methods: work limitations based on wind speed and direction and dust suppression techniques, for example, wetting surface soil. The excavation work was completed within three days.

Excavated soils necessary to remove the underground tank were stockpiled and sampled to determine if hazardous. All hazardous materials were disposed of appropriately to a designated disposal facility. Approximately 250 cubic yards of clean backfill soil (12 truckloads) were transported to the facility from an offsite location after removal of the underground tank, which was removed by crane and transported offsite. The excavated soils were characterized (sampled). Based on chemical characterization analysis, approximately 36 cubic yards of soil contaminated with hydraulic oil or gasoline were disposed of as non-RCRA hazardous waste at Chemical Waste Management in Kettleman City, California.

After decontamination procedures were completed, the aboveground Gasoline Separator Tank, Gasoline/Benzene Tank, Gasoline Accumulator Tank, Vapor Condenser Tank, and the Distillation Cylinder were disconnected and moved to a flatbed truck for transport offsite. The Propane Tank was also decontaminated, removed, and transported in the same manner.

Gasoline Release Area: Soil impacted by gasoline that was uncovered while excavating an underground pipe that ran from the Chemical Solution Storage Tank vault to the Gasoline/Benzene Tank. A soil area (approximately 9 feet by 10 feet by 7 feet deep) was visibly impacted at an elbow in the piping run. The visibly impacted soil was excavated using a backhoe until no visibly impacted soil existed. Based on chemical characterization, the excavated soil (approximately 23.5 cubic yards) was placed into a transportation container and was disposed of as a non-RCRA hazardous waste at the Chemical Waste Management Facility located in Kettleman City, California.

Site Restoration of the Chemical Solution Storage Tank Pit: Restoration activities included back-filling the Chemical Solution Storage Tank pit and the underground piping trenches as well as general site grading to promote controlled drainage and to prevent ponding. Fill material used at the site was obtained from two sources. Approximately 135 cubic yards of decomposed granite was obtained from Superior Ready Mix Concrete and was placed in the lower portion (from 13.5 feet to 3 feet below ground surface [bgs]) of the Chemical Solution Storage Tank pit. The remainder of the fill material consisted of on-site soil that had been excavated and stock-piled as part of the Chemical Solution Storage Tank and underground piping removal activities conducted during closure. On-site fill material was used to fill the upper 3 feet of the Chemical Solution Storage Tank excavation and the pipe trenches. The material was lightly compacted using a rubber-tired backhoe.

Before placing any on-site fill material into the excavations, 14 discrete samples and one composite sample were analyzed to verify that the material was acceptable for placement back into the excavations. Before placing any off-site fill material into the Chemical Solution Storage Tank excavation, a letter from Superior Ready Mix was obtained stating that the material provided was obtained from a location that had never engaged in any industrial activity to the best of Superior Ready Mix's knowledge and did not contain any contaminants.

PHASE III: Concrete Removal and Disposal: Closure of the concrete containment berm and pads occurred after the Gasoline/Benzene Storage Tank was removed. Closure activities for the concrete containment berm and pads consisted of manually removing any hazardous waste residue on the concrete. It is estimated that 12 truckloads of concrete were shipped offsite. Each truckload held approximately 20 cubic yards.

Concrete from secondary containment structures was analyzed and determined to be non-hazardous. Subsequently, concrete debris from the secondary containment structures and appurtenances was transported to Moody's as demolition debris. Concrete was disposed of in the demolition landfill.

Hydraulic Oil Release Area: Soil impacted by hydraulic oil was discovered after the concrete containment pad was removed. A soil area (approximately 7 feet by 16 feet by 3 feet deep) was visibly contaminated with hydraulic oil. The contaminated soil was excavated using a backhoe until no visibly stained soil existed. Based on chemical characterization, the excavated soil (approximately 12.5 cubic yards) was placed into a transportation container and was disposed of as a non-RCRA hazardous waste at the Chemical Waste Management Facility located in Kettleman City, California.

PHASE IV: Soil Sampling Plan: The primary objective of the soil sampling plan was to reveal whether or not there have been any releases of hazardous wastes or constituents to the soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, and any underground pipe trenches so that the facility can be designated as clean closed.

Soil contamination from operation was not anticipated; however, where contaminated soil was encountered, it was remediated to industrial risk-based levels employing the best available and most

cost-effective technologies at the time of the closure as described in the closure plan activities.

The closure activities at the Palm Enterprises Treatment Facility involved the excavation of approximately 360 cubic yards of concrete and soil. It is estimated that 120 cubic yards of soil were shipped offsite.

Additional information can be found in Section C of the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001".

Waste Characterization Sampling Activities Conducted: Waste characterization sampling included the collection of rinsate, concrete, and soil samples. This sampling ensured the proper characterization and disposal of closure-generated waste. Quality assurance/quality control sampling was performed in accordance with the approved Sampling and Analysis Plan. Verification sampling results were compared to the closure performance standards presented in the Closure Plan.

Verification Sampling Activities Conducted: Verification soil sampling was conducted to verify that soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, underground pipe trenches, and identified release areas met the closure performance standards as established in the Closure Plan. Soil sampling activities were conducted under the direct supervision of Mr. Phil Jagucki, registered geologist in the State of California. Site excavations to a maximum depth of 13.5 feet bgs were obtained.

Quality control samples were collected to verify the accuracy and precision of the laboratory. A comparison of the BTEX and styrene constituent concentrations to closure performance standards indicated that all verification sample results for BTEX and styrene were below the established clean closure performance standards. A comparison of lead concentrations to the closure performance standard indicated that all verification sample results for lead were below the established clean closure performance standard.

The hazardous waste management facility closure activities resulted in environmental improvement of the site and did not result in adverse environmental impacts to surrounding soils, strata, or other geological features. All closure activities are listed in the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001." A summary of the approximate quantities of waste to be generated during closure activities is presented on page E-15, Table 3 of the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001."

- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Please refer to complete project soils activities in item b. The entire facility area was only about one acre; consequently, the risk of property loss, injury, or death related to earthquake was minimal. Although the project site is located in a highly erodible area, the project activities did not have an impact on the stability of the soil at the project site. Removed soils were backfilled with suitable material and were lightly compacted. Wastewater generated during the project activities was transported off site; therefore, the adequacy of the soils to support wastewater disposal systems was not affected.

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Please refer to items b and c.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of water.

Please refer to items b and c.

- References:*
1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
 4. Palm Enterprises, 1987, Palm Enterprises Treating Facility – An Operations Plan for Hazardous Waste Treatment, June
 5. Tierra Data Systems, 1990, Erosion Study at the Naval Weapons Station Seal Beach, Detachment Fallbrook

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

7. Hazards and Hazardous Materials

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils; and
- Removal, decontamination and off-site transport of underground storage tanks.

Description of Environmental Setting: The subject site is an abandoned hazardous waste treatment facility located at the Naval Weapons Station Seal Beach, Detachment Fallbrook military installation. The Palm Enterprises Treatment Facility was issued a hazardous waste facility permit on March 31, 1988, which authorized Palm Enterprises to demilitarize and recycle the Navy's napalm canisters stored at three (3) locations at the Naval Weapons Station Seal Beach, Detachment Fallbrook. The Resource Conservation and Recovery Act (RCRA) permit authorized the use of two (2) units at the Palm Enterprises Treatment Facility. The permitted units consisted of a 12,000-gallon underground storage tank (Chemical Solution Storage Tank) and a Gasoline Separator Tank. Several pieces of ancillary equipment were also used in the treatment process. During 1989, the Palm Enterprises Treatment Facility was deactivated permanently when Palm Enterprises operations were discontinued due to the failure of the facility equipment to induce adequate throughput of the napalm through its distillation process to separate the benzene and polystyrene from the gasoline. The Palm Enterprises Treatment Facility has remained unused since that time. The Palm Enterprises Treatment Facility was closed under federal and State of California hazardous waste management regulations. Additional information is located in Section C of the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001". Detailed descriptions of the facility and equipment layouts are included in the closure plan.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

During Phases II, III, and IV, removal of the aboveground and underground storage tanks, concrete

removal and disposal, backfilling (site restoration), and soils and materials sampling, the following activities occurred in accordance with the closure plan and certification report.

Excavated soils necessary to remove the underground tank were stockpiled and sampled to determine if hazardous. Excavated soils were wetted to control dust. All hazardous materials, including concrete, rinsewaters, and excavated soils were disposed of appropriately to a designated disposal treatment, storage, and/or disposal facility. The excavated soils and concrete were characterized (sampled) to determine their level of toxicity. Based on chemical characterization analysis, approximately 36 cubic yards of soil contaminated with hydraulic oil or gasoline were disposed of as non-RCRA hazardous waste at Chemical Waste Management in Kettleman City, California. The concrete was determined to be suitable for disposal as a demolition material. The closure certification report verifies this result. Detailed descriptions of the closure activities performed are listed below.

After decontamination procedures were completed, all vessels having contained hazardous materials, including the aboveground Gasoline Separator Tank, Gasoline/Benzene Tank, Gasoline Accumulator Tank, Vapor Condenser Tank, Chemical Solution Storage Tank, and the Distillation Cylinder, were disconnected and moved to a flatbed truck for transport offsite. The Propane Tank was also decontaminated, removed, and transported in the same manner.

During Phase III, the concrete containment structures were broken up and removed. In the course of this work, the concrete was sampled and found to be non-hazardous. Consequently, no environmental impact resulted from this phase of the removal action. Concrete Removal and Disposal: Closure of the concrete containment berm and pads occurred after the Gasoline/Benzene Storage Tank was removed. Closure activities for the concrete containment berm and pads consisted of manually removing any hazardous waste residue on the concrete. It is estimated that 12 truckloads of concrete were shipped offsite. Each truckload held approximately 20 cubic yards.

Concrete from secondary containment structures was analyzed and determined to be non-hazardous. Subsequently, concrete debris from the secondary containment structures and appurtenances was transported to Moody's as demolition debris. Concrete was disposed of in the demolition landfill.

Transport of materials and wastes to off-site locations were performed in accordance with U.S. Department of Transportation standards and occurred over both public and military access-only roads. The potential adverse impacts during the closure activity were at less than significant or no impact levels.

Waste Characterization Sampling Activities Conducted: Waste characterization sampling included the collection of rinsate, concrete, and soil samples. This sampling ensured the proper characterization and disposal of closure-generated waste. Quality assurance/quality control sampling was performed in accordance with the approved Sampling and Analysis Plan. Verification sampling results were compared to the closure performance standards presented in the Closure Plan. That no environmental impacts resulted from the above activities is also verified in the closure certification report.

Verification Sampling Activities Conducted: Verification soil sampling was conducted to verify that soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, underground pipe trenches, and identified release areas met the closure performance standards as established in the Closure Plan. Soil sampling activities were conducted under the direct supervision of Mr. Phil Jagucki, registered geologist in the State of California. Sampling staff collected 33 samples, including four duplicate samples, during verification sampling activities at locations indicated in the closure plan.

Sample Collection Methods: Soil samples were collected in general accordance with the Closure Plan. Some deviations from the original plan were made to allow for improved efficiency and to provide sampling of the two new areas of contamination (hydraulic oil release area and gasoline release area) discovered after undertaking concrete and tank removal activities.

Quality control samples were collected to verify the accuracy and precision of the laboratory. A comparison of the BTEX and styrene constituent concentrations to closure performance standards indicated that all verification sample results for BTEX and styrene were below the established clean closure performance standards. A comparison of lead concentrations to the closure performance standard indicated that all verification sample results for lead were below the established clean closure performance standard.

Based on the results of the verification soil sampling and visual inspection, the Palm Enterprises Treatment Facility met the closure performance standards, and the facility is clean closed. No post closure care is needed at the facility. Review of the closure certification report verified the conclusions of the sampling reports.

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Worker Health and Safety: Palm Enterprises Treatment Facilities closure activities were performed, and the health hazards were managed in accordance with applicable worker health and safety standards. Health hazards were mitigated in accordance with applicable worker health and safety standards. All site contractors and workers were required to comply with the requirements of the approved health and safety plan. The health and safety plan is found in Appendix C of the "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001. This is verified by the closure certification report.

Employment during Palm Plant closure activities did not exceed twenty (20) persons; and use of ten (10) vehicles at any given time; one backhoe; one forklift; 3-4 flatbed trucks total; and 40 trucks total. Vehicle types used included personal cars, pick-up trucks, sport utility vehicles, forklifts, backhoe, and diesel tractor-trailers.

Public Concerns: The closure certification report verified that there were no significant or adverse changes on residential neighborhoods, noise, or transportation air pollution associated with the Palm Enterprises Treatment facility closure.

In addition, refer to item a.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

There were no schools within a one-mile radius of the project site.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

The facility is not a listed site.

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Emergency Contingency Plan: Because the Palm Enterprises Treatment Facility is not operational and does not have a Local Business Plan or Hazardous Materials Management Plan, the closure activities were not covered by any Local Business Plan or Hazardous Materials Management Plan. However, the Naval Weapons Station Seal Beach, Detachment Fallbrook developed Hazardous Substance Contingency Plan and Emergency Procedures that include emergency response activities for the napalm sites. Procedures outlined in this plan were to be followed in case of explosion or release of hazardous substances. See Section 9 of the Health and Safety Plan included as Appendix C of the closure plan

dated July 16, 2001 for details. No interference with an area-wide emergency response plan or an emergency evacuation plan was expected or was necessary because the site is located within a military installation.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
6. Weapons Support Facility, Seal Beach, 1998, Oil/Hazardous Substance Spill Contingency Plan, September

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

8. Hydrology and Water Quality

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

As part of the closure activities, the metal components (tanks/canisters) were decontaminated, generating rinse water. Decontamination of equipment and units at the site generated 495 gallons of rinse water. No spillage of rinse waters occurred during cleanup operations. Rinse waters were containerized in 55-gallon drums and shipped as a hazardous wastewater to ENSCO in El Dorado, Arkansas for treatment. Consequently, no impact to the surface or groundwater resulted from the closure activities, and this is verified in the certification report.

Description of Environmental Setting: Estimates of depths to groundwater near the facility range from twenty-five (25) feet to ninety (90) feet. Additional information can be found in the document "Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001" (pages B-4 and B-7) and the document "Palm Enterprises Treating Facility – An Operations Plan for Hazardous Waste Treatment – June 5, 1987" (page 7 of 40).

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Violate any water quality standards or waste discharge requirements.

Decontamination of equipment and units at the site generated 495 gallons of rinse water. No spillage of rinse waters occurred during cleanup operations. Rinse waters were containerized in 55-gallon drums and shipped as a hazardous wastewater to ENSCO in El Dorado, Arkansas for treatment. Consequently, no impact to the surface or groundwater resulted from the closure activities, and this is verified in the certification report. No further analysis is needed.

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which

would not support existing land uses or planned uses for which permits have been granted).

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.
- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.
- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- f. Otherwise, substantially degrade water quality.
- g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.
- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- i. Inundation by seiche, tsunami or mudflow.

In addition, the following are addressed to meet the requirements set forth under Section 711.4, Fish and Game Code and 753.5, Title 14, Code of California Regulations relating to filing of environmental fees:

- Changes to riparian land, rivers, streams, watercourses and wetlands under state and federal jurisdiction.
- Changes to any water resources which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that water.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
4. Palm Enterprises, 1987, Palm Enterprises Treating Facility – An Operations Plan for Hazardous Waste Treatment, June

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

9. Land Use and Planning

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. It is located entirely within a military installation and outside the

jurisdiction of any City Planning Commission. The project site has remained unused since 1989. The land now occupied by the Palm Enterprises Treatment Facility was vacated and will now be allowed to return to either its original state, or upon completion of the site closure, future land use will be determined by the Department of Navy.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

As previously noted in the Biological Resources section of this document, the site is located in a designated critical habitat for certain endangered species by the U.S. Wildlife Service. Therefore, the future land use may be restricted by this designation. A site biologist was present during closure operations, and the biologist and the closure construction contractor undertook mitigation measures to ensure that the local habitat was not disturbed during closure activities.

- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

See item a above.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
2. Naval Ordnance Center, Pacific Division, Fallbrook Detachment, 1996, Integrated Natural Resources Management Plan

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

10. Mineral Resources

Project activities likely to create an impact: None

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility and is located within a military installation. There are no known mineral resources at the project site, and the project activities did not result in the loss of mineral resource or the loss of availability of a locally-important mineral resource recovery site. No further analysis is needed.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

11. **Noise**

Project activities likely to create an impact:

- Excavation and off-site transport of contaminated soils;
- Removal, decontamination and off-site transport of underground storage tanks; and
- Backfill and compaction of excavated areas with soil obtained from on-site and off-site sources.

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility and is entirely located in a military installation. The nearest residential area is the NAVWPNSTASB Detachment base housing, which is approximately 0.9 mile due east of the project site.

Analysis of Potential Impacts:

Describe to what extent project activities would result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The general construction industry noise standards of 75-85 dBA were used. Noise levels were monitored during the closure activities. Hearing protection was available to all field workers during the closure activities. Hearing protection was required if the noise level exceeded 85 dBA. City noise limits are not applicable to activities at the NAVWPNSTASB, Detachment Fallbrook. Noise monitoring was limited to that needed for assessment of and compliance with occupational safety limits. The project was done in a short period during the daylight, and the noise level was not significant for residents.

- b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

This type of noise was not generated from the site activities.

- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

The closure project was completed within a few weeks; therefore, there was no permanent effect on noise levels.

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Please see item a above. Industrial standards were applied for worker safety.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

12. Population and Housing

Project activities likely to create an impact: None

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. The surrounding area of the site is open with some industrial activities. The nearest residential area is the base housing, which is approximately 0.9 mile due east of the site.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 13, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

13. Public Services

Project activities likely to create an impact: None

Description of Environmental Setting: There was no need for government facilities or public services during or after the project activities.

Nearby public facilities include:

School: Ellis School, Fallbrook
State highway: State Route 76 Mission Road
Waterway: Unnamed (intermittent) Creek and Fallbrook Creek
Airport: Fallbrook Airport
Railway: Not within 2 miles
Drinking Well: Approximately 4 miles due west of the project site near Lake O'Neil
Approximately 0.9 mile (NWS Base Housing) due east from the project site.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:
- Fire protection
 - Police protection
 - Schools
 - Parks
 - Other public facilities

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

14. Recreation

Project activities likely to create an impact: None

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. Upon the completion of the project, the site will be returned to its natural state or be returned to the Navy for the management of munitions or other suitable military uses. The closure project had no affect on recreational facilities.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such

that substantial physical deterioration of the facility would occur or be accelerated.

- b. Include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

15. Transportation and Traffic

Project activities likely to create an impact:

- Off-site transport of contaminated soils and rinsate;
- Off-site transport of underground storage tanks, scrap metal, and excavated concrete; and
- Delivery of soil from off-site sources.

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility. The traffic load in the neighboring road varies daily according to the intensity of activities in Marine Corps Camp Pendleton and NAVWPNSTASB, Detachment Fallbrook.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

There were no significant or adverse changes in traffic or transportation systems associated with Palm Enterprises Treatment Facility closure activities. Employment during Palm Plant closure activities did not exceed twenty (20) persons and use of ten (10) vehicles at any given time daily, one backhoe, one forklift, 3-4 flatbed trucks total, 40 trucks total. Vehicle types included personal cars, pick-up trucks, sport utility vehicles, forklifts, backhoe, and diesel tractor-trailers. There were no significant or adverse changes on residential neighborhoods, noise, or transportation air pollution associated with Palm Enterprises Treatment Facility closure activities. Transport of materials and wastes to off-site locations were performed in accordance with U.S. Department of Transportation standards and occurred over both public and military access-only roads. The potential adverse impacts during the closure activity were at less than significant levels.

- b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highway.

The traffic load, capacity, and design of the street system in the neighborhood were suitable to accommodate the military operation in this area. The additional transportation and traffic activities caused by the project activities were within the limit of the traffic load, capacity, and design of the street system in the neighborhood. In addition, see item a above.

- c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

No physical changes were made to the road system.

- d. Result in inadequate emergency access.

There were no impacts to emergency access resulting from the closure activities.

- e. Result in inadequate parking capacity.

Vehicles were parked on-site; consequently, parking was not affected.

- f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

There were no impacts on these items. In addition, see responses to items a through e above.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

16. Utilities and Service Systems

Project activities likely to create an impact:

- Disposal of contaminated water rinsate from containers;
- Disposal of underground storage tanks; and
- Disposal of contaminated excavated soils.

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. During closure operations, rinsing of contaminated containers, equipment, and surfaces, disposal of the rinsate, disposal of underground storage tanks, and contaminated soils required that these materials be shipped to appropriate disposal facilities. Those activities are described and addressed in detail below.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control

Board.

During closure activities, 495 gallons of rinsate was generated. Wastewater generated during the closure activities was containerized and transferred off site to a commercial treatment facility. The wastewater treatment in the off-site facilities met the applicable Regional Waster Quality Control Board standards.

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The project did not generate wastewater for surface discharge. Consequently, there was no need to construct new storm water drainage facilities or to expand existing facilities due to the project activities. Equipment decontamination was the only activity that required water supplies during the project. This water was supplied by the military installation.

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

See items a and b above.

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

See items a and b above.

- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.
- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Soil Removal and Disposal: It is estimated that 120 cubic yards of soil were shipped offsite. Approximately 36 cubic yards of soil contaminated with hydraulic oil or gasoline were disposed of as non-RCRA hazardous waste at Chemical Waste Management in Kettleman City, California.

Tank Removal and Disposal: After decontamination procedures were completed, the aboveground Gasoline Separator Tank, Gasoline/Benzene Tank, Gasoline Accumulator Tank, Vapor Condenser Tank, and the Distillation Cylinder were disconnected and moved to a flatbed truck for transport offsite. The Propane Tank was also decontaminated, removed, and transported in the same manner.

Concrete Removal and Disposal: Closure of the concrete containment berm and pads occurred after the Gasoline/Benzene Storage Tank was removed. Closure activities for the concrete containment berm and pads consisted of manually removing any hazardous waste residue on the concrete. It is estimated that 12 truckloads of concrete were shipped offsite. Each truckload held approximately 20 cubic yards.

Concrete from secondary containment structures was analyzed and determined to be non-hazardous. Subsequently, concrete debris from the secondary containment structures and appurtenances was transported to Moody's as demolition debris. Concrete was disposed of in the demolition landfill.

- g. Comply with federal, state, and local statutes and regulations related to solid waste.

Hydraulic Oil Release Area: Soil impacted hydraulic oil was discovered after the concrete containment pad was removed. A soil area (approximately 7 feet by 16 feet by 3 feet deep) was visibly contaminated

with hydraulic oil. The contaminated soil was excavated using a backhoe until no visibly stained soil existed. Based on chemical characterization, the excavated soil (approximately 12.5 cubic yards) was placed into a transportation container and was disposed of as a non-RCRA hazardous waste at the Chemical Waste Management Facility located in Kettleman City, California.

Waste Characterization Sampling Activities Conducted: Waste characterization sampling included the collection of rinsate, concrete, and soil samples. This sampling ensured the proper characterization and disposal of closure-generated waste. Quality assurance/quality control sampling was performed in accordance with the approved Sampling and Analysis Plan. Verification sampling results were compared to the closure performance standards presented in the Closure Plan.

Verification soil sampling was conducted to verify that soils beneath the concrete containment berm, concrete containment pad, Chemical Solution Storage Tank secondary containment, underground pipe trenches, and identified release areas met the closure performance standards as established in the Closure Plan.

Additional information can be found in Section C of the document "Revised Closure Plan - Palm Enterprises Treatment Facility - July 16, 2001".

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

17. Cumulative Effects

Project activities likely to create an impact: None

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. It is located entirely within a military installation and outside the jurisdiction of any City Planning Commission. The project site has remained unused since 1989. The land now occupied by the Palm Enterprises Treatment Facility was vacated and will now be allowed to return to either its original state, or upon completion of the site closure, future land use will be determined by the Department of Navy.

Analysis of Potential Impacts:

Describe to what extent project activities would:

- a. Increase the need for developing new technologies, especially for managing any hazardous or non-hazardous wastes that the project generates.
- b. Increase the need for developing new technologies for any other aspects of the projects.
- c. Leads to a larger project or leads to a series of projects, or is a step to additional projects. Examples of DTSC projects include Interim Corrective Measures and Removal Actions that are

not final remedies for a site or facility.

- d. Alters the location, distribution, density or growth rate of the human population of an area.
- e. Affect existing housing, public services, public infrastructure, or creates demands for additional housing.
- f. Be cumulatively considerable on the environments with cumulative adverse effects on air, water, habitats, natural resources, etc.

References: 1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

18. Mandatory Findings of Significance

Project activities likely to create an impact: None

Description of Environmental Setting: The project site is an abandoned hazardous waste treatment facility in a military installation. The project site has remained unused since 1989. The land now occupied by the Palm Enterprises Treatment Facility was vacated and will now be allowed to return to either its original state, or upon completion of the site closure, future land use will be determined by the Department of Navy.

As previously noted in the Biological Resources section of this document, the site is located in a designated critical habitat for certain endangered species by the U.S. Wildlife Service. Therefore, the future land use may be restricted by this designation. A site biologist was present during closure operations, and the biologist and the closure construction contractor undertook mitigation measures to ensure that the local habitat was not disturbed during closure activities.

Analysis of Potential Impacts:

Describe to what extent the project would:

- a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. Have impacts that are individually limited but cumulatively considerable. As used in the subsection, "cumulatively considerable".
 ["Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects].

- c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

References:

1. Revised Closure Plan-Palm Enterprises Treatment Facility, July 16, 2001,
2. Naval Ordnance Center, Pacific Division, Fallbrook Detachment, 1996, Integrated Natural Resources Management Plan, December,
3. Ogden Environmental and Energy Services, 1996, Final Report of Historic Properties Inventory of Three Napalm Sites on the Naval Ordnance Center, Pacific Division, Fallbrook Detachment, Fallbrook, California, August

Findings of Significance:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

V. DETERMINATION OF DE MINIMIS IMPACT FINDING

On the basis of this Special Initial Study:

- ☒ I find that there is no evidence before the Department of Toxic Substances Control that the proposed project will have a potential for an adverse effect on wildlife resources or the habitat upon which the wildlife depend. A Negative Declaration with a De Minimis Impact Finding will be prepared.

VI. DETERMINATION OF APPROPRIATE ENVIRONMENTAL DOCUMENT

On the basis of this Special Initial Study:

- ☒ I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.
- ☐ I find that although the proposed project COULD HAVE a significant effect on the environment, mitigation measures have been added to the project which would reduce these effects to less than significant levels. A NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project COULD HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

DTSC Project Manager Signature	Title	Telephone #	Date
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DTSC Branch/ Unit Chief Signature	Title	Telephone #	Date
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ATTACHMENT A

SPECIAL
INITIAL STUDY
REFERENCE LIST
FOR
(Project Name)

1. Bettelle, 2001, Revised Closure Plan - Palm Enterprises Treatment Facility, July 16, 2001.
2. Naval Ordnance Center, Pacific Division, Fallbrook Detachment, 1996, Integrated Natural Resources Management Plan, December.
3. Ogden Environmental and Energy Services, 1996, Final Report of Historic Properties Inventory of Three Napalm Sites on the Naval Ordnance Center, Pacific Division, Fallbrook Detachment, Fallbrook, California, August.
4. Palm Enterprises, 1987, Palm Enterprises Treating Facility – An Operations Plan for Hazardous Waste Treatment, June.
5. Tierra Data Systems, 1990, Erosion Study at the Naval Weapons Station Seal Beach, Detachment Fallbrook.
6. Weapons Support Facility, Seal Beach, 1998, Oil/Hazardous Substance Spill Contingency Plan, September.
7. California Air Resources Board, Ambient Air Quality Standards (1/25/99)
8. Appendix 1, Palm Enterprises Treatment Facility Closure Equipment and Components



Appendix 1
Palm Enterprises Treatment Facility
Naval Weapons Station Seal Beach, Detachment Fallbrook
Fallbrook, San Diego County, California
Closure Equipment and Components

The equipment/components that were cleaned, dismantled, removed, disposed of, and/or recycled during the closure removal process included the following:

Processing Unit

Gasoline Separator Tank- the Gasoline Separator Tank received napalm from the underground Chemical Solution Storage Tank by a series of pumps and pipes. The Gasoline Separator Tank was approximately twenty-seven (27) feet long by four (4) feet in diameter and was located on a metal stand next to a forty (40)-feet flatbed trailer. The capacity of the tank was approximately 2,500 gallons. The tank internally contained steam coils and a steam distributor.

Gasoline Accumulator Tank- A Gasoline Accumulator Tank was located adjacent to the Gasoline Separator Tank near the 40-feet flatbed trailer in the middle of the site. The Gasoline Accumulator Tank was constructed of carbon steel and was approximately fifteen- (15) feet long by four- (4) feet in diameter, with an approximate capacity of 1,500 gallons.

Vapor Condenser Tank- A Vapor Condenser Tank straddled the Gasoline Separator Tank and Gasoline Accumulator Tank. The Vapor Condenser Tank was a carbon steel tank approximately fifteen- (15) feet long by two- (2) feet in diameter, with an approximate capacity of 350 gallons.

Distillation Cylinder- A Distillation Cylinder was located on the abandoned 40-feet flatbed trailer; the Distillation Cylinder was approximately eight (8) feet long by one (1) feet in diameter, with an approximate capacity of 50 gallons.

Ancillary equipment - Ancillary equipment associated with the tanks included various units associated with the processing of the separated components of the napalm (i.e., gasoline and polystyrene), as well as associated pumps, manifolds, and piping.

Extruder

Miscellaneous equipment remaining at the site included an extruder containing hardened polystyrene, approximately 2,200 linear feet of piping, and several pumps.

Structures

Structures remaining at the site included approximately 3,780 square feet of concrete pads; a 40-feet flatbed trailer embedded in concrete, and miscellaneous steel scrap. The concrete pad, approximately forty- (40) feet by sixty-four-- (64) feet, was adjacent to the flatbed trailer. The concrete pad housed miscellaneous equipment associated with the Palm Enterprises Treatment Facility. The thickness of the concrete pad was undetermined, and there was no curb associated with the pad.

Containment Systems

Based on information contained in the Palm Enterprises Operation Plan dated June 5, 1987, the underground Chemical Solution Storage Tank was placed in an earthen trench lined with a commercial plastic liner with a minimum thickness of 20 mils. The capacity of this secondary containment system was greater than 15,000 gallons. The tank was placed atop a six (6)-inch layer of sand separating the tank from the liner. Selected material was used to fill the trench adjacent to the walls of the tank.

APPENDIX 1

Palm Enterprises Treatment Facility
Naval Weapons Station Seal Beach, Detachment Fallbrook
Fallbrook, San Diego County, California
Closure Equipment and Components

The Gasoline/Benzene Tank, as well as the Propane Storage Tank, were located within an earthen berm that had been lined with what appears to be some type of plastic sheeting overlain by concrete. The volume and integrity of the containment system had not been determined.